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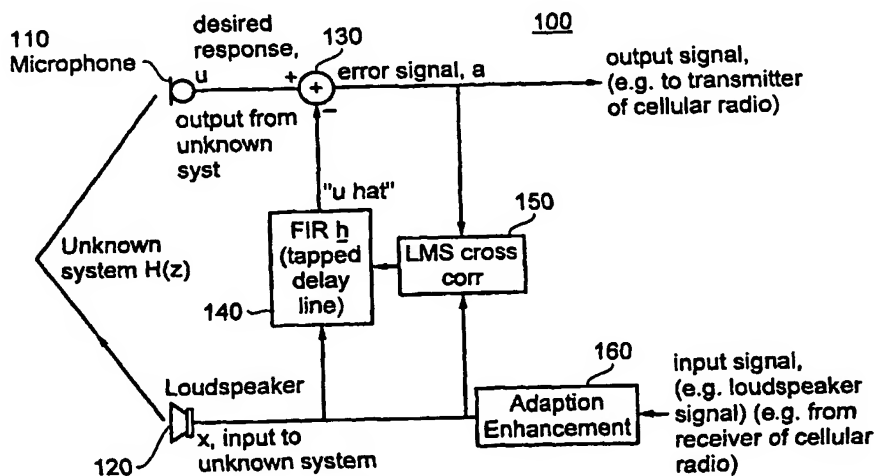
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(54) Title: **METHODS AND APPARATUS FOR IMPROVING ADAPTIVE FILTER PERFORMANCE BY INCLUSION OF IN-AUDIBLE INFORMATION**



(57) Abstract: Adaptive filtering algorithm training signals incorporate adaptation-enhancing signals having properties, such as spectral whiteness and rapidly decaying auto-correlation between samples, which allow the adaptive filtering algorithms to converge more quickly as compared to conventional algorithms. Exemplary adaptation-enhancing signals are incorporated such that the training signals are not perceptibly altered as compared to conventional training signals. For example, in a hands-free telephony application, an adaptation-enhancing signal according to the invention is dynamically tailored so that it is masked by a loudspeaker signal (the conventional training signal) and is thus inaudible to hands-free telephone users.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04M H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 708 536 A (NIPPON TELEGRAPH & TELEPHONE) 24 April 1996 (1996-04-24) abstract; figure 3 ---	1-28
A	FR 2 762 467 A (FRANCE TELECOM) 23 October 1998 (1998-10-23) abstract ---	1-28
A	US 4 969 144 A (BLACKWELL STEVEN R ET AL) 6 November 1990 (1990-11-06) abstract --- -/--	1-28

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category "	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>TURNER S E: "PASSBAND ECHO CANCELLATION ALGORITHMS FOR HIGH-SPEED MODEMS" PROCEEDINGS OF THE SOUTHEAST CONFERENCE, US, NEW YORK, IEEE, vol. -, 1991, pages 856-860, XP000287062 ISBN: 0-7803-0033-5 figure 6</p> <p>-----</p>	1-28

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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